



COAXIAL MONITOR LOUDSPEAKER

ALTEC 'Duplex' Loudspeakers are two-way transducers, consisting of independent high- and low-frequency units, mounted within one physical frame, to provide the quality advantages of a professional two-way speaker system in compact form.

The efficiency, power handling capacity, and extremely wide response of these units make them an ideal choice for both single-source (high-level) and distributed (low-level) sound systems. The 605B provides minimal distortion, wide range, smooth response, and excellent distribution characteristics to assure perfect audio reproduction of speech and music for all PA, sound reinforcement, or background music installations and for high-quality monitoring of broadcast and recording material.

Each 605B 'Duplex' Loudspeaker is supplied with a professional-type, full-section dividing network, incorporating a high-frequency balance control for correctly matching or adjusting to the acoustical characteristics of individual listening areas.

The 605B 'Duplex' — one of the finest 15-inch, full-range loudspeakers in use throughout the audio industry — has, for years, been the accepted standard monitor loudspeaker of major broadcast and recording studios. The 605B covers the audio range from 20 to 20,000 Hz. The exceptional uniformity of response is due, in part, to the large, edge-wound voice coils (aluminum in the high-frequency section and copper in the low-frequency section), operating in magnetic gaps of high flux density, produced by independent oversize Alnico V magnets. The large 2¼" aluminum high-frequency diaphragm has tangential compliance, and is coupled to a heavy, high-impact, compression-molded multicellular horn. It provides outstanding sound distribution and clarity of the higher musical harmonics — without annoying resonant 'peaks' or 'hollows' which produce undesirable sound cancellation. A combination of phasing plug and pole piece, precision-machined with two acoustically exponential annular slots, assures correct phase relationship between the center and outer edge of the HF diaphragm. The high-compliance low-frequency cone, driven by the large 3" copper voice coil, reproduces the lowest fundamental bass tones without frequency doubling of 'bottoming' — even at full rated power.

ALTEC[®]

A DIVISION OF ALTEC CORPORATION

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ALTEC 605B

SPECIFICATIONS

DESCRIPTION	MODEL 605B		
		Weight:	LF: 2.25 pounds HF: 0.531 pound
Power:	35 watts (50 watts, peak)	Structure Weight:	LF: 15.13 pounds HF: 5 pounds
Frequency Response:	20-20,000 Hz	Flux:	LF: 11,000 Gauss HF: 14,000 Gauss
Pressure Sensitivity:	97 dB SPL at 4 ft from 1 watt (equal to EIA rating of 50 dB at 30' from 1 mw) or 112.4 dB SPL at 4 ft from 35 watts	Crossover Network:	1,600 Hz full-section (furnished with loudspeaker)
Impedance:	16 ohms	Terminals:	Binding Post (4)
Cone Resonance:	25 Hz	Diameter:	15-5/16 inches
Voice Coil Diameters:	LF: 3 inches HF: 1 1/4 inches	Mounting Data:	Baffle Opening: 13-5/8 inches Mtg. Bolt. Cntrs: 8 holes equally spaced on 14-9/16" diameter circle Depth: 10 inches
Horizontal Distribution:	90°	Weight:	28 pounds (with network)
Vertical Distribution:	40°		
Magnet Type:	Alnico V		

ARCHITECT'S AND ENGINEER'S SPECIFICATIONS

605B

The loudspeaker shall be 15-5/16 inches in diameter and of the 2-way Duplex type, having a continuous power rating of 35 watts and a peak power rating of 50 watts. The loudspeaker shall be capable of reproducing a frequency range from 20 to 20,000 Hz and from 35 watts shall have a minimum pressure sensitivity of 112.4 dB SPL at 4 feet, measured on axis. The loudspeaker shall employ a full-section dividing network having a 1,600 Hz crossover frequency and a continuously adjustable range of high frequency attenuation from 0 to -10 dB.

The loudspeaker shall have a nominal impedance of 16 ohms. The low-frequency cone shall have a free air resonance frequency of 25 Hz; the LF voice coil shall be 3 inches in diameter, edge-wound with copper ribbon, and shall operate in a magnetic gap having a flux density of 11,000 Gauss, derived from an Alnico V magnet having a weight of at least 2.25 pounds. The outer edge (rim) of the LF cone shall utilize a high-compliance, mechanically-damped, cloth-surround which, complemented by the correct apex suspension (spider), shall be capable of reproducing the stated low-frequency response.

The high frequency diaphragm shall be of aluminum, having tangential compliance, and shall be properly loaded, acoustically, by a multicellular horn, compression-molded of heavy, high-impact plastic. The frequency distribution pattern of the loudspeaker, owing to the use of this multicellular horn, shall be 90° by 40°. The HF voice coil shall be 1 1/4" in diameter, edge-wound with aluminum ribbon, and shall operate in a magnetic gap having a flux density of 14,000 Gauss, derived from an Alnico V magnet having a weight of at least 0.531 pounds. High frequency diaphragms having annular compliances and/or utilizing horns with spherical radiation patterns shall be unacceptable under this specification.

The loudspeaker frame shall be of heavy cast construction. The high-frequency diaphragm and voice coil assembly shall be field replaceable without the use of special tools or skills; this shall be interpreted to mean that the loudspeaker shall incorporate self-centering dowels to insure proper spacing and alignment of the diaphragm and voice coil assembly.

The loudspeaker shall be Altec Model 605B.